ENCLOSURE DISSIPATED WATTAGE					
Enclosure Type	Temperature Class				
	T6 40°C & T5 55°C	T6 55°C	T5 40°C	T6 65°C	T5 65°C
PL 513 GRP	4.1	2.5	5.6	1.5	3.5
PL 520 GRP	4.8	3	6.6	1.8	3.6
PL 612 GRP	4.1	2.5	5.6	1.5	3
PL 615 GRP	6.4	4	8.8	2.4	4.8
PL 620 GRP	11.4	7.1	15.6	4.2	8.5
PL 626 GRP	11.4	7.1	15.6	4.2	8.5
PL 630 GRP	20.8	13	28.6	7.8	15.6
PL 712 GRP	3.35	2.14	4.6	1.2	2.4
PL 722 GRP	5.31	3.32	7.3	1.9	3.9
Size 1 (S1) St./St.	13.95	8.7	19.1	5.2	10.4
Size 2 (S2) St./St.	18.15	11.3	24.9	6.8	13.6
Size 2L (S2L) St./St. x 2 Long	18.15	11.3	24.9	6.8	13.6
Size 3 (S3) St./St.	23.7	14.8	32.5	8.8	17.7
Size 4 (S4) St./St.	29.95	18.7	41.1	11.2	22.4
Size 4L (S4L) St./St. x 4 Long	29.95	18.7	41.1	11.2	22.4
Size 5 (S5) St./St.	32.85	20.5	45.1	12.3	24.6
Size 6 (S6) St./St.	40	25	55	15	30
Size 7 (S7) St./St.	52	23.5	71.5	19.5	39
Size 8 (S8) St./St.	65	40.6	89.3	24.3	48.7
Size 9 (S9) St./St.	79.35	49.5	109.1	29.7	59.5
EJB 1 St./St.	4.74	2.96	6.51	1.778	3.55
EJB 2 St./St.	6.64	4.15	9.13	2.49	4.98

DISSIPATED WATTAGE FACTOR

The Dissipated Wattage Factor of the enclosures has been established by test to ensure that the maximum temperature as permitted by temperature certification is not exceeded.
When terminal quantities greater than those at maximum amps are required (up to maximum physical quantity only) then the current shall be reduced accordingly to remain within the Dissipated Wattage Factor of the enclosure.

COMBINED TERMINAL RESISTANCE FACTOR (See Page 38)

This factor is used to determine the number of terminals that can be accommodated within the enclosure without exceeding the Wattage Factor. The Combined Terminal Resistance Factor is the sum of the individual terminal resistances and the resistance of the cable core equal in length to the enclosure maximum diagonal. (Core Resistance is taken from BS 6360).

WATTAGE TO BE DISSIPATED = $N \times F \times I^2$

N = Number of Terminals
F - Combined Terminal Resistance Factor
I = Maximum Current
e.g. Number of terminals in a PL 630 enclosure at 20.8 Watts:
10 x WDU 2.5 (I = 17 amps), 2 x WDU 6 (I = 29 amps)
$(10 \times 0.003035 \times 17^2 = 8.77 \text{ watts}) + (2 \times 0.001404 \times 29^2) = 2.36 \text{ watts}$)
Total Watts = 8.77 + 2.36 = 11.13 watts.
Therefore, this terminal combination is acceptable as the wattage is less than that of the PL 630 maximum of 20.8 watts.
NOTE: If a smaller than maximum permitted conductor is fitted into a power terminal, then the smaller conductor resistance must be used when calculating the combined terminal resistance.

TRANSPOSED FORMULA:

$$W = N \times I^2 \times F \qquad N = \frac{W}{F \times I^2} \qquad I = \sqrt{\frac{W}{N \times F}}$$